



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,049	12/31/2001	James F. Frye JR.	H052617.1138US0	4758

22879 7590 10/18/2005

HEWLETT PACKARD COMPANY  
P O BOX 272400, 3404 E. HARMONY ROAD  
INTELLECTUAL PROPERTY ADMINISTRATION  
FORT COLLINS, CO 80527-2400

EXAMINER
----------

ELAMIN, ABDELMONIEM I

ART UNIT	PAPER NUMBER
----------	--------------

2116

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/039,049

Applicant(s)

FRYE, JAMES F.

Examiner

A Elamin

Art Unit

2116

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 January 0558.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/29/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
2. Claims 1-4, 6-28, 39-44, 46-53 and 55-58 are rejected under 35 U.S.C. 102(e) as being anticipated by Paul et al, Pub. No. US 2003/0005096 A1.
3. Claims 1, 47, 49, 53 and 57-58, Paul teaches a method of directing a computer network for booting [*title, abstract*] using an embedded operating system (OS) based computer [*central boot server 414 of Fig. 4*], the method comprising:  
  
    listening with an embedded OS based computer to PXE requests from a plurality of PXE enabled target servers of a computer network [*steps of Fig. 5A, see also para 0070-0073*]; and  
  
    providing from the embedded OS based computer to one of the plurality of PXE enabled target servers a netboot program and address information of a boot server responsive to a PXE request from one of the PXE enabled target servers [*para 0073-0074, see also the steps of Fig. 5B*].
4. Claim 2, Paul teaches the computer network comprises a plurality of subnetworks of PXE enabled target servers [*see Fig. 4*].
5. Claim 3, Paul teaches the embedded OS based computer listens to one of the subnetwork [*Fig. 5A and related disclosure*].

6. Claim 4, Paul teaches the embedded OS based computer listens to one of the subnetwork by wireless communication [*para 0031*].
7. Claim 6, Paul teaches the plurality of PXE enabled target servers are part of a subnetwork of the computer network [*see Fig. 4*].
8. Claim 7, Paul teaches the listening step is performed through a TCP/IP stack [*para 0037*].
9. Claim 8, Paul teaches the address information of the boot server comprises an IP address [*para 0067*].
10. Claims 9, 52, 56, Paul teaches transferring a boot image from the boot server responsive to netboot program executing on one of the PXE enabled target server [*para 0039 and 0043*].
11. Claim 10, Paul teaches the boot image is provided through a router [*para 0064 and 0070*].
12. Claims 11, 51, 55, Paul teaches the boot image is provided by wireless communication [*para 0031*].
13. Claim 12, Paul teaches the boot image comprises responses to preboot execution environment queries [*abstract*].
14. Claim 13, Paul teaches the boot image further comprises a script specific to the requesting target server [*para 0039 and 0043*].
15. Claim 14, Paul teaches the boot image comprises code to install at least one operating system [*para 0039 and 0043*].
16. Claim 15, Paul teaches the boot image comprises application software [*para 0039 and 0043*].

17. Claim 16, Paul teaches the netboot program is executed out of a read-only memory [*para 0072*].

18. Claim 17, Paul teaches the boot image is transferred using a trivial file transfer protocol [*see Fig. 5A*].

19. Claim 18, Paul teaches the PXE enabled server is booted by executing the boot image [*para 0043*].

20. Claims 19-21, Paul teaches displaying address information for the plurality of PXE enabled servers [*para 0076 and 0086*].

21. Claim 22, Paul teaches a NIC controller [*Para 0033*].

22. Claim 23, Paul teaches a display coupled to the processor [*para 0033*].

23. Claim 24, Paul teaches an input device coupled to the processor [*para 0033*].

24. Claim 25, Paul teaches a memory coupled to the processor [*para 0033*].

25. Claim 26, Paul teaches The embedded OS based computer as in claim 25, wherein the memory further comprises: a web browser; PXE service applications; a TFTP application; a Net Boot Program (NBP); and a boot image [*abstract, Figs 3, 4, 5A an 5B and related disclosure*].

26. Claim 27, Paul teaches the embedded OS based computer is configured through the web browser [*para 0037*].

27. Claim 28, Paul teaches the embedded OS based computer is configured directly [*abstract, para 0018-0020*].

28. Claim 39, Paul teaches providing the netboot program from the embedded OS based computer comprises providing the netboot program from the embedded OS based computer that is separate from the boot server [*see Fig. 4*].

Art Unit: 2116

29. Claim 40, Paul teaches providing the netboot program to the one of the PXE enabled target servers comprises providing the netboot program that when executed causes the one of the PXE enabled target servers to issue a request to the boot server for a boot image to download to the one of the PXE enabled target servers [*see Figs. 5A and 5B*].

30. Claims 41, 48, Paul teaches receiving, by the embedded OS based computer, the request to the boot server; and in response to the request, send, by the embedded OS based computer, a Trivial File Transfer Protocol (TFTP) request to the boot server for the boot image [*see Figs. 5A and 5B*].

31. Claim 42, Paul teaches the netboot program when executed causes the one of the PXE enabled target servers to issue a request to the boot server for a boot image [*see Figs. 5A and 5B*].

32. Claim 43, Paul teaches the boot image comprises a script that includes code to install an operating system on the one of the PXE enabled target servers [*abstract*].

33. Claims 44, 50, Paul teaches a handheld computer [*a PDA, see para 0032*].

34. Claim 46, Paul teaches a display to display address information for the plurality of PXE enabled target Servers [*para 0033*].

### ***Claim Rejections - 35 USC § 103***

35. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2116

36. Claims 5, 45 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paul et al, Pub. No. US 2003/0005096 A1.

37. Claims 5, 45 and 54, Paul fails to teach the embedded OS is Windows CE.

Official notice is taken that both the concept and the advantages of Windows CE is old and well known in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Paul to include Windows CE, because of its fast boot times.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to A Elamin whose telephone number is (571) 272-3674. The examiner can normally be reached on MON-FRI 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



A. Elamin

Primary Examiner

Art Unit 2116

October 15, 2005